Elm Seed Bug, *Arocatus melanocephalus:* an exotic invasive pest new to the U.S.

Idaho State Department of Agriculture

In summer 2012 the **elm seed bug (ESB)**, an invasive insect new to the U.S., was first identified from specimens collected in Ada and Canyon counties in Idaho. During 2013 it was found to have spread to Elmore, Gem, Owyhee, Payette, and Washington counties as well as Malheur County, Oregon. ESB were reported in Washington and Utah the following year. Commonly distributed in south-central Europe, ESB feeds primarily on the seeds of elm trees, although they have also been collected from oak and linden trees in Europe. The insect does not damage trees or buildings nor does it present any threat to human health.

Adult elm seed bugs ISDA photo

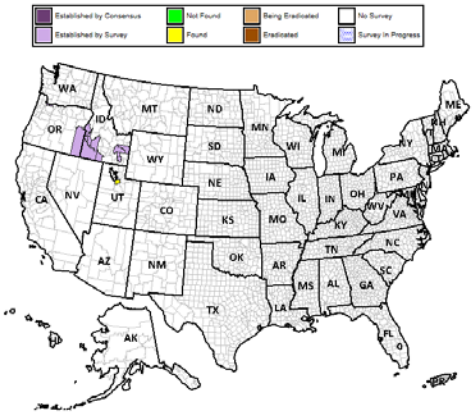
However, due to its habit of entering houses and other buildings in large numbers to escape the summer heat and later to overwinter, it can be a significant nuisance to homeowners.

Elm seed bug biology

ESB spend the winter as hibernating adults, mate during the spring and lay eggs on elm trees. Immature ESB feed on elm seeds from May through June becoming adults by early summer when they leave the trees.

They are most noticeable in springtime as overwintering ESB begin to emerge inside buildings and try to escape, during hot periods in the summer when ESB attempt to enter buildings to get away from the heat, and in the autumn when they enter buildings to overwinter.

When disturbed or crushed the bugs produce an unpleasant odor.



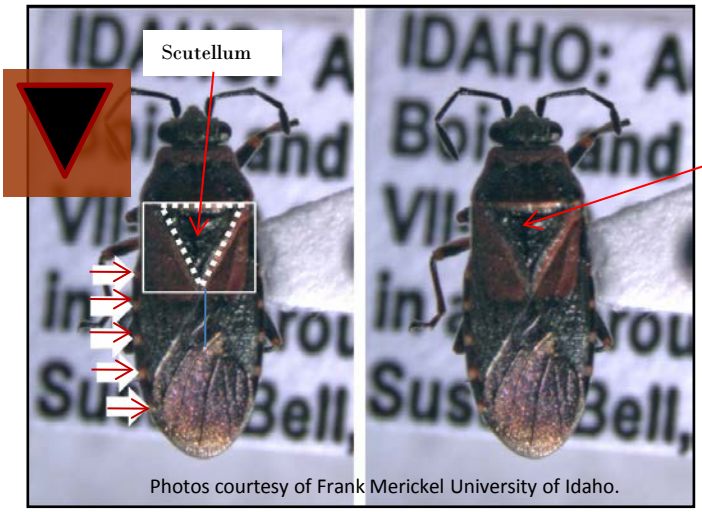
Current reported range of Elm Seed Bug in the US
Map from USDA APHIS PPQ

ISDA photos

Identification

Elm seed bug belongs to the order **Hemiptera** (the "true bugs") and is related to the boxelder bug and stink bug. Hemipterans typically cross their wings in an X-pattern flat over their backs and have tube-like mouthparts that point backwards under their heads and are used to suck liquids from a host (in this case seeds of elm).

An adult ESB is only about **1/3 inch long** and the color of dark chocolate. With the help of a magnifying glass it is apparent that the edge of its body extends slightly beyond the wings. The extended part of the body is marked in a series of five narrow white to pink bands on a dark colored background.



The dashed white lines outline the scutellum. The arrows point to the light bands on the margin of the body which extends beyond the wings.

Unique features of ESB: The black, triangular **scutellum** (a shield- like plate found on the backs of some insects) of the elm seed bug is enclosed within a **rusty-colored rectangle**.

Flip an adult ESB over to see its **reddish-colored abdominal segments**.

Red abdominal segments

Management

Management of ESB in houses and other buildings requires persistence and patience. ESB inside homes can be collected by vacuuming. Outside the home pesticides can kill ESB that are directly contacted, and some pesticides are known to have short residuals of 2-4 weeks. A pesticide treatment can reduce the number of adult ESB's on your property, but may do little to prevent future infestations as residual pesticides degrade over time.

Because ESB does not threaten human health and does no structural damage to buildings, it is better to combat the pest by excluding it from dwellings instead (pest-proofing).

For some excellent suggestions on pest-proofing your home visit:
"How to Pest Proof Your Home" by M. Potter, University of Kentucky Extension, **http://www.ca.uky.edu/entomology/entfacts/ef641.asp**

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